What is claimed is:

1.   A database retrieving method, comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed;

generating   an   index   corresponding   to   the retrieval condition if the cost required when the entire retrieval is performed is higher as a result of the cost comparison; and

retrieving a database by using the generated index.

2.   A database retrieving method, comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed;

determining whether or not a first index which satisfies a condition wider than the retrieval condition exists among already generated indexes, if the cost required when the entire retrieval is performed is higher as a result of the cost comparison;

generating a second index which satisfies only the retrieval condition by using the first index, if the

first index which satisfies the wider condition exists; and

retrieving a database by using the generated second index.

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3.   A database retrieving method, comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required

10   when entire retrieval is performed;

determining whether or not two or more indexes which satisfy the retrieval condition by being combined exist among a plurality of already generated indexes, if the cost required when the entire retrieval is

15   performed is higher as a result of the cost comparison;

generating   an   index   corresponding   to   the retrieval condition by combining the two or more indexes, if the two or more indexes exist; and

retrieving a database by using the generated

20   index.

4.   The database retrieving method according to claim 1, further comprising:

managing data of the number of accesses, a

25   generation date and time, and an update frequency of

the generated index; and

deleting the generated index according to management status of the data.

5. The database retrieving method according to claim 1, further comprising:

determining whether or not an already generated index that is applicable to an access process exists, if an access to the database is a data update or deletion;

determining whether or not access performance of the access process is degraded due to existence of the index, if the index exists; and

deleting the index prior to start of the access process, if the access performance is degraded.

6. The database retrieving method according to claim 2, further comprising:

managing data of the number of accesses, a generation date and time, and an update frequency of the generated index; and

deleting the generated index according to management status of the data.

7. The database retrieving method according to claim 2, further comprising:

determining whether or not an already generated
index that is applicable to an access process exists,
if an access to the database is a date update or deletion;

determining whether or not access performance of
5   the access process is degraded due to existence of the
index, if the index exists; and

deleting the index prior to start of the access
process, if the access performance is degraded.

10   8.   The database retrieving method according to
claim 3, further comprising:

managing data of the number of accesses, a
generation date and time, and an update frequency of
the generated index; and

15   deleting the generated index according to
management status of the data.

9.   The database retrieving method according to
claim 3, further comprising:

20   determining whether or not an already generated
index that is applicable to an access process exists,
if an access to the database is a data update or deletion;

determining whether or not access performance of
the access process is degraded due to existence of the
25   index, if the index exists; and

deleting the index prior to start of the access process, if the access performance is degraded.

10. A computer-readable storage medium on which is recorded a program for causing a computer to execute a process when being used by the computer, said process comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed;

generating an index corresponding to the retrieval condition if the cost required when the entire retrieval is performed is higher as a result of the cost comparison; and

retrieving a database by using the generated index.

11. A computer-readable storage medium on which is recorded a program for causing a computer to execute a process when being used by the computer, said process comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required

when entire retrieval is performed;

determining whether or not a first index which satisfies a condition wider than the retrieval condition exists among already generated indexes, if the cost required when the entire retrieval is performed is higher as a result of the cost comparison;

generating a second index which satisfies only the retrieval condition by using the first index, if the first index which satisfies the wider condition exists; and

retrieving a database by using the generated second index.

12. A computer-readable storage medium on which is recorded a program for causing a computer to execute a process when being used by the computer, said process comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed;

determining whether or not two or more indexes which satisfy the retrieval condition by being combined exist among a plurality of already generated indexes, if the cost required when the entire retrieval is

performed is higher as a result of the cost comparison;

generating an index corresponding to the retrieval condition by combining the two or more indexes, if the two or more indexes exist; and

5   retrieving a database by using the generated index.

13. A database retrieving apparatus, comprising:

10   an access process optimizing unit making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed;

15   a dynamic index generating unit generating an index corresponding to the retrieval condition if the cost required when the entire retrieval is performed is higher as a result of the cost comparison; and

an access processing unit retrieving a database

20   by using the generated index.

14. A database retrieving apparatus, comprising:

an access process optimizing unit making a

25   comparison between a cost required when retrieval is

performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed;

5 an index managing unit determining whether or not a first index which satisfies a condition wider than the retrieval condition exists among already generated indexes, if the cost required when the entire retrieval is performed is higher as a result of the cost comparison;

10 a dynamic index generating unit generating a second index which satisfies only the retrieval condition by using the first index, if the first index which satisfies the wider condition exists; and

an access processing unit retrieving a database 15 by using the generated second index.

15. A database retrieving apparatus, comprising:

an access process optimizing unit making a 20 comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed;

an index managing unit determining whether or not 25 two or more indexes which satisfy the retrieval

condition by being combined exist among a plurality of already generated indexes, if the cost required when the entire retrieval is performed is higher as a result of the cost comparison;

5   a dynamic index generating unit generating an index corresponding to the retrieval condition by combining the two or more indexes, if the two or more indexes exist; and

an access processing unit retrieving a database

10   by using the generated index.

16. A database retrieving apparatus, comprising:

access process optimizing means for making a

15   comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when entire retrieval is performed;

dynamic index generating means for generating an

20   index corresponding to the retrieval condition if the cost required when the entire retrieval is performed is higher as a result of the cost comparison; and

access processing means for retrieving a database by using the generated index.

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